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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,871	03/07/2002	Martin Kreuzer	TRW(ASG)6058	9986
26294	7590	06/29/2005	EXAMINER	
TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P. 526 SUPERIOR AVENUE, SUITE 1111 CLEVEVLAND, OH 44114			RODRIGUEZ, PAMELA	
			ART UNIT	PAPER NUMBER
			3683	

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/092,871	Applicant(s) KREUZER ET AL.	
	Examiner Pam Rodriguez	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6,9-13,16 and 18-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6,9-13,16,18-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. The Amendment filed March 29, 2005 has been received and considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 9-11 are rejected under 35 U.S.C. 102(a) as being anticipated by DE 20105733.

Regarding Claim 9, DE '733 discloses an assembly (see Figure 3) comprising a steering wheel 100 and a vibration damping device 10' having all the features of the instant invention including: a damping means including a hollow damping body 16 arranged in the steering wheel 100 (see Figure 3), a mass core 110 acting as an attenuation mass arranged inside the hollow damping body 16 (see Figure 3), and an electrical control unit coupled with the damping means, wherein the electrical control unit is able to alter mechanical vibration characteristics of the device such that different vibration frequencies can be damped (see the abstract of the corresponding PG Pub application 2002/0140212).

Regarding Claim 10, see figure 3, wherein the cross-hatching for element 16 seems to indicate it being made of an elastic material.

Regarding Claim 11, see Figure 3.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 2, 4, 6, 12, 13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP document no. 05238394 to Yamada in view of RD document no. 333099.

Regarding Claim 1, Yamada discloses an assembly (see Figure 1) comprising a steering wheel 2 and a vibration damping device 7 having most all the features of the instant invention including: a damping unit 17/18 arranged in the steering wheel 2 (see Figure 1), an attenuation mass 8 mounted for vibration movement in the steering wheel (see the abstract), and an electrical control unit coupled with the damping unit 17/18 to actuate the damping unit (see the abstract, in particular the phrase which discusses the ON and OFF energization of the electromagnets 17 and 18), wherein the control unit is able to, after the actuation of the damping unit 17/18, further control the damping unit to alter mechanical vibration characteristics of the device such that different vibration frequencies can be damped (see the abstract, in particular the last line).

However, Yamada does not disclose a sensor through which the control unit receives data regarding vibrations of the steering wheel.

The RD '099 document is relied upon merely for its teachings of a steering assembly damper having a control unit 4 wherein a sensor (i.e., the vehicular speed and rate and degree of turn sensors shown in the figure) is provided, through which the control unit receives data regarding vibrations of the steering wheel.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the damper assembly of Yamada to include a sensor as taught by the RD '099 document as an additional means of regulating the damping. Providing a sensor would enable better overall control of the damping factoring in other conditions of the vehicle at the time damping is needed. (Also, note that EP document no. 1162124 also discloses such a sensor 56).

Regarding Claim 2, Yamada discloses that the damping means 17/18 is designed such that the mechanical vibration characteristics of the device can be altered by supplying electrical energy to the damping means 17/18 (see the abstract).

Regarding Claim 4, note how magnets 17 and 18 (the damping means) are comprised of a material (i.e., a magnetic material) which alters mechanical characteristics with the supply of electrical energy (i.e., magnetized or non-magnetized).

Regarding Claim 12, note how magnets 17 and 18 are readable as hollow bodies and to some extent have a degree of elasticity to them.

Regarding Claim 13, see Figure 1.

Regarding Claims 6 and 15, Yamada does not disclose that the material in which the damping means is comprised of is an electrorheological fluid.

Again, the RD '099 document is relied upon for its teachings of a steering assembly damper which utilizes an electrorheological fluid damping means to control vibrations of a steering wheel (see the abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the damper assembly of Yamada to include an electrorheological fluid damping means as taught by the RD '099 document as an alternate means of controlling the damping in the steering wheel. Substituting the electromagnets of Yamada with the electrorheological fluid damping means of the RD '099 document would merely be an alternate equivalent means of performing the same damping function.

7. Claims 16 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 20105733 in view of RD document no. 333099.

Regarding Claim 16, DE '733 discloses most all the features of the instant invention as applied above with respect to Claim 9.

However, DE '733 does not disclose that the hollow damping body contains one of an electrorheological fluid and a magnetorheological fluid.

The RD '099 document is relied upon for its teachings of a steering assembly damper which utilizes an electrorheological fluid damping means to control vibrations of a steering wheel (see the abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the damper assembly of DE '733 to include an electrorheological fluid damping means as taught by the RD '099 document as an alternate means of controlling the damping in the steering wheel. Substituting the damping means of the DE '733 document with the electrorheological fluid damping means of the RD '099 document would merely be an alternate equivalent means of performing the same damping function.

Regarding Claims 18 and 19, the DE '733 document discloses most all the features of the instant invention as applied above, except for the claimed sensor and control unit actuation.

The RD '099 document is relied upon merely for its teachings of a steering assembly damper having a control unit 4 wherein a sensor (i.e., the vehicular speed and

rate and degree of turn sensors shown in the figure) is provided, through which the control unit receives data regarding vibrations of the steering wheel.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the damper assembly of DE '733 to include a sensor as taught by the RD '099 document as an additional means of regulating the damping. Providing a sensor would enable better overall control of the damping factoring in other conditions of the vehicle at the time damping is needed. (Also, note that EP document no. 1162124 also discloses such a sensor 56).

Regarding Claim 20, see Claim 10.

Regarding Claim 21, see Claim 11.

Response to Arguments

8. Applicant's arguments filed March 29, 2005 have been fully considered but they are not persuasive.

Applicant's arguments with respect to Claims 1, 2, 4, 6, 12, 13, and 15 all seem to center around the examiner's combination rejection using the Yamada and the RD '099 documents. While the examiner agrees with applicant that the Yamada reference does not disclose the sensor as claimed, the RD '099 document does provide this teaching. In particular, the RD document discloses sensors which monitor vehicle speed and rate and degree of turn of the vehicle. These are both parameters effecting the vibration of the steering wheel. So when taken in this context, it can be said that

these sensors do sense a vibration of the steering wheel, i.e., they sense parameters which initiate the vibration of the steering wheel itself.

In response to applicant's argument that there is no suggestion to combine the Yamada and RD '099 references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, as stated above, Yamada provides the claimed steering wheel and vibration damping device, while the RD '099 document provides the teachings of the claimed sensor. One of ordinary skill in the art when looking to improve upon a steering wheel damper assembly such as Yamada's could look to the RD '099 teachings to employ a sensor to better and more accurately determine the necessary vibration adjustment for the existing damper assembly.

Regarding the rejection of Claims 9-11 and 19-21, the examiner recognizes that the DE '733 document has a filing date later than that of applicant's priority date, however, applicant has not perfected his priority date to invoke or refute the use of this reference. Thus, until applicant submits and meets the necessary requirements of perfecting this priority date, the reference may still be used.

In response to applicant's arguments regarding the DE '733 reference not disclosing an electrical control unit coupled with the damping unit to alter vibration

characteristics, the examiner respectfully disagrees. The DE '733 reference utilizes a gas bag module which in conjunction with an electrically conductive bearing element alters vibrations in a steering wheel. Thus, inherently some sort of electrical control unit must be utilized to affect this damping to regulate the bearing element to alter the gas bag module to perform the necessary damping.

With regards to Claim 19, the RD '099 reference discloses the sensor means claimed here and is being relied upon as discussed in conjunction with Claim 1 above.

Regarding applicant's arguments with respect to Claims 16 and 18, see the examiner's remarks with respect to Claims 1 and 19 above.

In response to applicant's argument that there is no suggestion to combine the DE '733 and RD '099 references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the DE '733 document teaches the claimed steering wheel assembly while the RD '099 document teaches the claimed fluid damping body. One of ordinary skill in the art would looking to improve upon an existing steering wheel damping assembly such as the one disclosed in the DE '733 document could glean from the RD '099 document's teachings the benefits of utilizing an electrorheological fluid damping means to better regulate and more finely tune the damping of the entire system.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The RD '099 document is relied upon for its teachings of a steering assembly damper which utilizes an electrorheological fluid damping means to control vibrations of a steering wheel (see the abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the damper assembly of DE '733 to include an electrorheological fluid damping means as taught by the RD '099 document as an alternate means of controlling the damping in the steering wheel. Substituting the damping means of the DE '733 document with the electrorheological fluid damping means of the RD '099 document would merely be an alternate equivalent means of performing the same damping function.

It is for these reasons that the rejections have been maintained.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pam Rodriguez whose telephone number is 571-272-7122. The examiner can normally be reached on Mondays 5 am -3:30 pm and Tuesdays 5 am -11 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Bucci can be reached on 571-272-7099. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Pam Rodriguez
Primary Examiner
Art Unit 3683

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